

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2005/001159

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7 A63C 17/01

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 17/00,17/01,17/01.17/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
KR, JP: Classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/09283 IAI (DECOLEE CO.,LTD) 13 NOVEMBER 2003 Page 4-7 and Fig 1-5	1-4,7,8
Y		5,6
X	US 4076267 A (Willis Leonard Lipscomb) 20 SEPTEMBER 1978 Columb 2 line 58-Columb 3 line 2 fig 5	1-4,7,8
Y		5,6
X	US 5540455 A (LiLe R.Chambers) 30 JULY 1996 Entire document	1,2,8
Y	KR 20-337494 Y1( JUNG JAE HONG) 30 DECEMBER 2003 Fig 1a-2a	5,6
X	JP 2001-29663 A (TAKAHASHI KOJI) 6 FEBRUARY 2001 Entire document	1,3,8

 Further documents are listed in the continuation of Box C. See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
08 AUGUST 2005 (08.08.2005)

Date of mailing of the international search report

10 AUGUST 2005 (10.08.2005)

Name and mailing address of the ISA/KR

 Korean Intellectual Property Office  
920 Dunsan-dong, Seo-gu, Daejeon 302-701,  
Republic of Korea  
Facsimile No. 82-42-472-7140

Authorized officer

KANG, Jung Seok

Telephone No. 82-42-481-5450



**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

PCT/KR2005/001159

Patent document cited in search report	Publication date	Patent family members)	Publication date
wo 03/092831 A1	13.11.2003	EP 1511541 US 2004262872A1 KR 10-394848B1	2005.3.9 2004.12.30 2003.8.14
US 4076267A	28.02.1978	NONE	
US 5540455A	30.07.1996	NONE	
KR 20-337494(Y1)	30.12.2003	NONE	
JP 2001-29663A	06.02.2001	NONE	